#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1.28

## WELDING INSPECTION REPORT

Resident Engineer: Casey, William **Report No:** WIR-027802 Address: 333 Burma Road **Date Inspected:** 19-Jun-2012

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1730 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: American Bridge/Fluor Enterprises, a JV **Location:** Job site

**CWI Name:** As Noted Below **CWI Present:** Yes No

**Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A **Weld Procedures Followed:** Yes N/A **Electrode to specification:** No Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** 

**Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component:** OBG/Tower

### **Summary of Items Observed:**

Quality Assurance Inspector (QA) Rodney Patterson was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

## Ultrasonic Testing (OBG Deck Drop-in stiffeners Lift 13 East)

This QA performed 100% Ultrasonic Testing (UT) on Complete Joint Penetration (CJP) deck drop-in web and flange connections on lift 13E/14E. This weld was previously accepted by QC Ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3. This QA observed no rejectable indications at the time of testing. This QA generated a TL-6027 UT report on this date. The completed work observed at this location appeared to be in compliance with the contract specifications. The weld designations are as follows.

13E-PP123-E2.1-BW1 13E-PP123-E2.1-BF1 13E-PP123-E2.1-BF3

This QA observed ABF/JV QC inspector Salvador Merino performing magnetic particle testing (MT) of the back gouged root of the tie bracket connection to the vertical and horizontal flange of PP123 as seen in the attached photograph.

The QA inspector observed later in the shift, ABF/JV qualified welder Richard Garcia # 5892 performing Shielded Metal Arc Welding (SMAW) in the 2G and 3G positions utilizing the Caltrans approved Welding

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Procedure Specification ABF-WPS-D1.5-1080-R1. The welding observed was for the tie bracket between the horizontal and vertical floor beam flange at panel point 123 as previously noted. The repair surface and surrounding area was brought to temperature by the use of a gas torch and the preheat temperature was confirmed ABF personnel prior to welding. The Quality Control (QC) inspector Salvador Merino was observed monitoring the welding parameters at the start of welding. The weld was observed to be completed prior to the end of the QA inspectors shift.

Magnetic Particle Testing (OBG Deck Drop-in stiffeners Lift 13 East)

This QA performed 50% Magnetic Particle Testing (MT) on Complete Joint Penetration (CJP) deck drop-in web and flange connections on lift 13E/14E. This weld was previously accepted by QC technicians. This QA observed no rejectable indications at the time of testing. This QA generated a TL-6027 UT report on this date. The completed work observed at this location appeared to be in compliance with the contract specifications. The weld designations are as follows.

13E-PP123-E2.1-BW1 13E-PP123-E2.1-BF1 13E-PP123-E2.1-BF2 13E-PP123-E2.1-BF3

#### OBG 13E Deck Drop-in Repairs

The QA inspector observed at random intervals, ABF/JV qualified welder Steve Davis #7889 performing Shielded Metal Arc Welding (SMAW) in the 4G position utilizing the Caltrans approved Welding Procedure Specification ABF-WPS-D1.5-1004. The welding observed was for the repair of the deck panel drop-in splice weld previously rejected by Ultrasonic Testing (UT) by ABF QC personnel. The repair surface and surrounding area was brought to temperature by the use of induction heaters from the topside of the deck as seen in the attached photograph. The preheat temperature was confirmed ABF personnel prior to welding. The Quality Control (QC) inspector Salvador Merino was observed monitoring the welding parameters at the start of welding. Weld is designated as 13E-E2.8. The weld repairs observed were performed at the following locations during the QA inspectors shift;

Y=3575mm, Depth 4mm, Length=60mm Y=3120mm, Depth 10mm, Length=85mm Y=1730mm, Depth 5mm, Length=65mm

This QA observed ABF/JV QC inspector John Pagliero performing UT of the Longitudinal rib stiffener splice welds for the Drop-in between PP122~PP122.5. The QA observed no rejectable indications marked by the QC at the time of observation.

This QA spent a portion of this reviewing and documenting the status and completion of various production welding tracking logs for lift 13E/14E drop-in deck work currently in-process. The QA recorded the information on the OBG tracking log.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

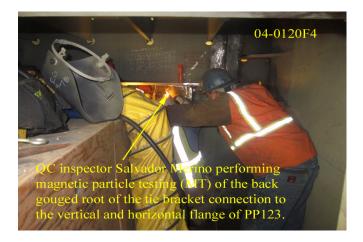
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## **Summary of Conversations:**

No relevant conversations.





#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Patterson, Rodney	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer